

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/014253 A1

(51) International Patent Classification⁷: **B29B 9/06**,
C08J 3/12

(21) International Application Number:
PCT/EP2004/007760

(22) International Filing Date: 14 July 2004 (14.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
103 34 504.3 29 July 2003 (29.07.2003) DE
60/498,155 27 August 2003 (27.08.2003) US

(71) Applicant (for all designated States except US): **BASELL
POLYOLEFINE GMBH** [DE/DE]; Brühler Strasse,
50389 Wesseling (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KÜHL, Reinhard**
[DE/DE]; Lenbachstrasse 1, 67061 Ludwigshafen (DE).
ENDERLE, Johannes-Friedrich [DE/DE]; Spohrstrasse
26, 60318 Frankfurt (DE). **WITT, Michael** [DE/NZ]; 187
Kawaha Point Road, Rotorua (NZ).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR GRANULATING POWDERS OF THERMOPLASTIC POLYMERS UNDER IMPROVED
ECONOMIC CONDITIONS

(57) Abstract: In a process for granulating thermoplastic polymers, in particular thermoplastic polyolefins, the polymer powder prepared in the polymerization reactor is introduced into an extruder, melted and homogenized in the extruder, then pressed through an extrusion die and granulated. According to the invention, an organic solvent or suspension medium is added to the polymer powder in an amount in the range from 0.001 to 20 % by weight, prior to introduction into the extruder. The invention is particularly useful for granulating polyethylene or polypropylene, thereby increasing the polymer throughput at constant energy consumption or decreasing the energy consumption at constant polymer throughput.

WO 2005/014253 A1